

App. No. 09/882,076
Amendment Dated: February 3, 2006
Reply to Office Action of August 4, 2005

REMARKS/ARGUMENTS

In the Office Action of August 4, 2005, claim 1-23 have been rejected. Claims 11-17 are rejected under 35 U.S.C. 101. Claims 1-23 are rejected under 35 U.S.C. 103(a). Claims 1, 11, and 18 have been amended. Claims 1-23 remain pending.

I. Rejection under 35 U.S.C. 101

Claims 11-17 are rejected in the Office Action under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Office Action states that claims 11-17 are not limited to tangible embodiments due to the definition of "medium" provided in the specification. Claim 11 has been amended to direct the medium of the claims to a medium that has "at least one physical media". Accordingly, Applicants believe that the amendment above places claims 11-17 in a condition for allowance. Reconsideration of these claims is respectfully requested.

II. Rejections under 35 U.S.C 103(a)

(1.) Claims 1-7, 10-11, 14-19, and 22-23 are rejected in the Office Action under 35 U.S.C. 103(a) as being unpatentable over Kung et al. (US Patent No. 6,574,739 B1; hereinafter "Kung") in view of Fruehling et al. (US Patent No. 6,625,688 B1; hereinafter Fruehling). Applicants respectfully disagree as explained below.

Independent claims 1, 11, and 18 each recite that the prior utilization of the computer or CPU "is measured by resolving user time, kernel time, and idle time within a time period into a utilization percentage that corresponds to the prior utilization". In contrast, Kung does not

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describe this method for determining the prior utilization, but merely describes a method for observing a "perceived processing load". The perceived processing load of the CPU in Kung is dependent on the state of an M/IO line (i.e., status signal line) that indicates whether the CPU is performing a read/write operation to memory or to an I/O port. (See Kung column 2, lines 16-27). Kung admits that this M/IO line only has a "strong correlation" between the processing load of the CPU and the activity of the M/IO line based on experimental results. (Kung column 2, lines 28-35) This method of estimating a current load of the CPU (it cannot be deemed as a measure of prior utilization because there is not discussion of taking the measurement over a period of time) cannot be equated with or considered equivalent to the claimed method of determining the prior utilization from the user time, kernel time, and idle time within a time period. There is no discussion of these measurements ever being taken in Kung.

Additionally, modifying Kung according to the invention of Fruehling would make Kung unfit for its intended purpose. Kung discloses that "The circuit monitors the state of the memory access line...The monitoring circuit can interrupt the processor to force an interrupt service call to a BIOS routine. The BIOS routine will adjust the internal clock frequency...". (Kung column 1, lines 52-61) Therefore, Kung depends on instantaneous changes of the clock frequency for the current perceived processing load in order to modify the clock frequency while that load is being handling by the CPU. Kung actually interrupts the CPU to make the adjustment. That Kung will make this measurement and adjust the clock frequency periodically or in response to a signal is of no consequence. Kung still makes the clock frequency change in correspondence to the current perceived processing load, and not according to a measurement of prior utilization. Fruehling, which does not describe any method for adjusting the performance

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of a CPU, merely measures the health of a CPU or CPUs and can "steal a bus cycle or use idle bus cycles" to make the measurement. (Fruehling column 11, lines 32-34) Incorporating this invention into the invention provided by Kung would result in an invention that would not operate as intended. Every time that Kung would monitor the M/IO line during an idle cycle, it would show little or no load on the CPU, and no adjustment would be made. In fact, Kung modified according to Fruehling would never adjust the CPU if the state of the M/IO was only measured during an idle cycle.

Accordingly, the combination of Kung and Fruehling does not include all of the limitations of claims 1, 11, or 18, nor does the combination of Kung and Fruehling generate an invention operable for its intended purpose. Therefore, claims 1, 11, and 18 are patentable over Kung in view of Fruehling.

Claims 2-7, 10, 14-17, 19, and 22-23 are dependent on claims 1, 11, and 18 respectively. Therefore, for at least the reasons stated above, claims 2-7, 10, 14-17, 19, and 22-23 are also not unpatentable over Kung in view of Fruehling.

(2.) Claims 8-9, 12-13, and 20-21 are rejected in the Office Action under 35 U.S.C. 103(a) as being unpatentable over Kung et al. (US Patent No. 6,574,739 B1; hereinafter "Kung"), Fruehling et al. (US Patent No. 6,625,688 B1; hereinafter Fruehling) and in view of Mittal et al. (US Patent No. 5,719,800; hereinafter "Mittal"). Applicants respectfully disagree as explained below.

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The rejection of these claims is predicated on the rejection of independent claims 1, 11, and 18 as being unpatentable over Kung in view of Fruehling. As described above, claim 1, 11, and 18 as amended are patentable over Kung in view of Fruehling. The addition of Mittal does not cure the deficiencies noted above regarding Kung and Fruehling. Accordingly, for at least the reasons that claims 1, 11, and 18 are patentable over Kung in view of Fruehling, claims 8-9, 12-13, and 20-21 are also patentable over Kung and Fruehling in view of Mittal.

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicant at the telephone number provided below.

Respectfully submitted,

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